

CLAIMS

1. A light emission method of a light source for imaging in which light as a light source for imaging is emitted using a first light generating instrument of emitting red light, a second light generating instrument of emitting green light and a third light generating instrument of emitting blue light, said method comprising:

a first light emitting step of making said first light generating instrument emit light in a first light emission period;

a second light emitting step of making said second light generating instrument emit light in a second light emission period;

a third light emitting step of making said third light generating instrument emit light in a third light emission period; and

a fourth light emitting step of making said first light generating instrument, said second light generating instrument and said third light generating instrument emit light at the same time in a fourth light emission period, in a period for display of one image,

wherein at least one of the durations of said first light emission period, said second light emission period

and said third light emission period is made different from others.

2. The light emission method according to claim 1, wherein at least any one of the three controls:

control to make the light intensity of said first light generating instrument different for said first light emission period and said fourth light emission period;

control to make the light intensity of said second light generating instrument different for said second light emission period and said fourth light emission period; and

control to make the light intensity of said third light generating instrument different for said third light emission period and said fourth light emission period

is performed.

3. The light emission method according to claim 2, wherein a ratio of the light amount of said first light generating instrument in said first light emission period, the light amount of said second light generating instrument in said second light emission period, and the light amount of said third light generating instrument in said third light emission period,

and a ratio of the light amount of said first light generating instrument, the light amount of said second light generating instrument and the light amount of said third light generating instrument in said fourth light emission period are made substantially the same.

4. The light emission method according to claim 1, wherein said first light emission period, said second light emission period, said third light emission period and said fourth light emission period are assigned to said period for display of one image in a continuous or discontinuous manner.

5. The light emission method according to claim 4, wherein said first light emission period, said second light emission period and said third light emission period are assigned to said period for display of one image in this order or in no particular order in a continuous or discontinuous manner, and said fourth light emission period is assigned so as to be inserted in a period after one round of said first light emission period, said second light emission period and said third light emission period.

6. The light emission method according to claim 4, wherein said fourth light emission period is divided into divided periods, and the divided periods are assigned for display of one image so as to be inserted between

at least one pair of light emission periods of said first light emission period, said second light emission period and said third light emission period.

7. A light emitting apparatus of emitting light as a light source for imaging, comprising:

    a first light generating instrument for emitting red light;

    a second light generating instrument for emitting green light;

    a third light generating instrument for emitting blue light; and

    a control instrument for controlling light emission by said first to third light generating instrument so that

        a first light emitting step of making said first light generating instrument emit light in a first light emission period;

        a second light emitting step of making said second light generating instrument emit light in a second light emission period;

        a third light emitting step of making said third light generating instrument emit light in a third light emission period; and

        a fourth light emitting step of making said first light generating instrument, second light generating

instrument and third light generating instrument emit light at the same time in a fourth light emission period are carried out in a period for display of one image,

wherein said control instrument performs control to make at least any one of the durations of said first light emission period, said second light emission period and said third light emission period different from others.

8. The light emitting apparatus according to claim 7, wherein said control instrument performs at least any one of :

control to make the light intensity of said first light generating instrument different for said first light emission period and said fourth light emission period;

control to make the light intensity of said second light generating instrument different for said second light emission period and said fourth light emission period; and

control to make the light intensity of said third light generating instrument different for said third light emission period and said fourth light emission period.

9. The light emitting apparatus according to claim 7, wherein said control instrument performs control to make substantially the same a ratio of the light amount of

said first light generating instrument, the light amount of said second light generating instrument and the light amount of said third light generating instrument in said first light emission period, said second light emission period and said third light emission period, and a ratio of the light amount of said first light generating instrument, the light amount of said second light generating instrument and the light amount of said third light generating instrument in said fourth light emission period.

10. The light emitting apparatus according to claim 7, wherein said control instrument performs control to assign said first light emission period, said second light emission period, said third light emission period and said fourth light emission period to said period for display of one image in a continuous or discontinuous manner.

11. The light emitting apparatus according to claim 10, wherein said control instrument performs control to assign said first light emission period, said second light emission period and said third light emission period to said display period for position image in this order or in no particular order in a continuous or discontinuous manner, and assign said fourth light emission period so as to be inserted in a period after one round of said

first light emission period, said second light emission period and said third light emission period.

12. The light emitting apparatus according to claim 10, wherein said control instrument performs control to divide said fourth light emission period, and assign the divided periods to said period for display of one image so as to be inserted between at least one pair of light emission periods of said first light emission period, said second light emission period and said third light emission period.

13. A projection display apparatus comprising:

a light source;

a light collecting system collecting light from said light source;

a light modulation element modulating light collected by said light collecting system; and

a projection instrument of projecting light modulated by said light modulation element,

wherein said projection display apparatus has the light emitting apparatus according to claim 7 as said light source.

14. A program of making a computer function as a control instrument of controlling light emission by said first to third light generating instrument so that

a first light emitting step of making said first light generating instrument emit light in a first light emission period;

a second light emitting step of making said second light generating instrument emit light in a second light emission period;

a third light emitting step of making said third light generating instrument emit light in a third light emission period; and

a fourth light emitting step of making said first light generating instrument, second light generating instrument and third light generating instrument emit light at the same time in a fourth light emission period are carried out in a period for display of one image of the light emitting apparatus according to claim 8.

15. A recording medium in which the program according to claim 14 is recorded, wherein said recording medium is capable of being processed by a computer.